

WATER PERMIT NO. 8574-3

Name of Applicant: Ivan Jelsma

Address: 41412 15th St, Springfield SD 57082

Phone: 605 661-9358

Amount of Water Claimed: 1.33 cfs

Total Acres: 136

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Bon Homme

Type of Waste Disposal System:

Location: 2 miles northwest of Springfield

PRIORITY

Date Received: 12-27-21

Application/License Fee: \$ 1050

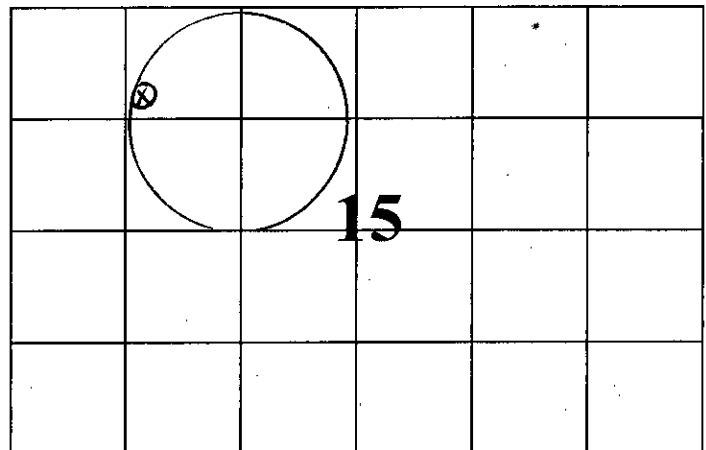
Corrected Application Received: 1-5-22

Period of Annual Use: May 1 – September 30

Remarks:

Diversion Point: NW 1/4 NW 1/4 Sec 15-T93N-R60W

Land to be Irrigated: NW 1/4 Sec 15-T93N-R60W



Depth of Well: 140

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-5-22

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8574-3**

Date of first receipt of application December 27, 2021.

Date of return to applicant for corrections, amendments or changes December 27, 2021.

Date of receipt of corrected application January 5, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8574-3 to Ivan Jelsma, 41412 15th St, Springfield SD 57062 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8574-3 appropriates 1.33 cubic feet of water per second from one well completed into the Niobrara Aquifer (140 feet deep) located in the NW 1/4 NW 1/4 Section 15 for irrigation of 136 acres located in the NW 1/4 Section 15; all in T93N-R60W. This site is located approximately 2 miles northwest of Springfield SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.
3. The date from which applicant may claim right is December 27, 2021.
4. The date of approval of Permit No. 8574-3 is April 4, 2022.
5. One-fifth of the construction is to be completed on or before October 4, 2024.
6. All construction is to be completed on or before April 4, 2027.
7. Water is to be put to beneficial use on or before April 4, 2031.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 8574-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

APR 28 2022

date



FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8574-3</u>	(office use only) Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri River</u>	
	Newspaper <u>Springfield Times</u>	
	<u>Press & Dakotan</u>	

RECEIVED
DEC 27 2021
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name to Appear on Irrigation Permit Ivan Jelsma

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 41412 15th St Springfield SD 57062
(Address) (City) (State) (Zip Code)

Phone 605-369-2317 Mobile 661-9358 Email _____

2. Amount of water claimed 1.33 *CFS or 600 **GPM ***AF Total Acreage 136
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Well

4. Location of point of diversion 1 well in NW 1/4 section 15 T93N-R60W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
(NW 1/4 NW 1/4) County _____

5. County or counties where water will be used Bon Homme

6. Annual period during which water is to be used May 1 - September 30

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>NW 1/4 section 15-T93N-R60W</u>	<u>34</u>		
<u>NW 1/4 section 15 T93N R60W</u>	<u>34</u>		
<u>NW 1/4 section 15 T93N R60W</u>	<u>34</u>		
<u>NW 1/4 section 15 T93N R60W</u>	<u>34</u>		

8. Give a description of the project. (Attach sheet if more space is needed)

1 center pivot constructed on the NW 1/4 section 15 T93N R60W

I, Ivan Jelsma, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

Supplemental Information

(Complete required and applicable portions only)

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☒ Yes ☐ No Drilled by Christen Well & Irrigo
(if yes, please provide copies of logs)b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Christen Well & Irrigation

For either Existing or Proposed Wells:

c) Well Depth (required) 140 Depth to Top of Water Bearing Material 96 Depth to Water from Surface 96d) Distance to nearest domestic well on applicant's property 140 Property owned by others 2400'

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

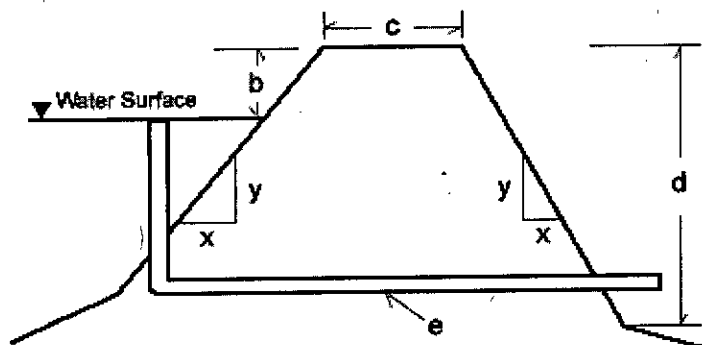
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



6

X	

Quarter NW

Section 15

Township 93N

Range 60 w

County Bon Homme

6

STATIC WATER LEVEL	96
PUMPING WATER LEVEL	
SCREEN LENGTH	
SLOT SIZE	
TOTAL DEPTH	140'

8574-3

SD EForm - 1621LD V1

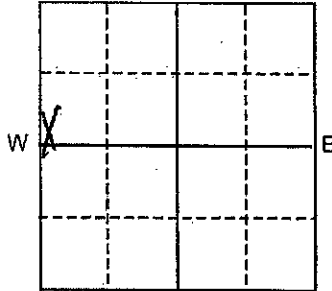
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NW 1/4 Sec 15 Twp 93-N Rg 60-WWell Owner: Ivan JelsmaCounty Bon Homme

North

Please mark well location with an "X"



Well Completion Date

3-9-21

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

3000 ft. from septic tank (Identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>160</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>60</u> FT	<u>28</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Cement</u>	<u>130</u>	<u>0</u> Lb/gal	<u>0</u> Ft	<u>60</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

pumped down w/ pressure grouter

SCREEN:

☐ Perforated pipe ☐ Manufactured
Diameter 14 Inches Length 30 Feet

Material

Slot Size Set From 60 Feet to 140 FeetOther information open hole from 60 to 140

WAS A PACKER OR SEAL USED?

☒ Yes ☐ No

If so, what material?

Describe packer(s) and location

concrete
0-60

DISINFECTION:

Was well disinfected upon completion?

☒ Yes, How?chlorine

Lab to which water

quality sample sent for analysis

Business Name:

Address: 41412 15 St.City, State, Zip: Springfield SD 57002

WELL LOG:

DEPTH

FORMATION	FROM	TO
<u>brown top soil</u>	<u>0</u>	<u>6</u>
<u>brown clay</u>	<u>6</u>	<u>57</u>
<u>black shale</u>	<u>57</u>	<u>73</u>
<u>gray shale - bit water</u>	<u>73</u>	<u>77</u>
<u>gray drilling shale</u>	<u>77</u>	<u>140</u>
<u>LOTS OF CRACKS</u>		

STATIC WATER LEVEL

96

FEET

If flowing: closed in pressure

PSI

GPM flow through

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: pumped w/ turbine pump & engine
☐ Bailed
☐ Other

Pumping Level Below Land Surface

100 Ft. After 2 Hrs. pumped 800 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: 600 GPM

REMARKS

This well was drilled under license # 444

and this

report is true and accurate.

Drilling firm:

Christensen Well & Hydration

Signature of License Representative:

Cody W. Christensen

Signature of Well Owner or Equitable Property Holder:

RECEIVED

Date:

12-1-21

FEB 02 2022

WATER RIGHTS PROGRAM



United States
Department of
Agriculture

Bon Homme County, South Dakota



Common Land Unit ☐ Tract Boundary

☐ Non-Cropland
☐ Cropland

Wetland Determination Identifiers

- ☐ Restricted Use
- ☐ Limited Restrictions
- ☐ Exempt from Conservation
- ☐ Compliance Provisions

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2021 Program Year

Map Created April 12, 2021

Farm 6468

15-93N-60W-Bon Homme

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership, rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

December 27, 2021

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation located in Bon Homme County. In order to complete the application, the following is required.

- The application/license fee for irrigation of 136 acres is \$1,050.00.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date January 5, 2022

RECEIVED OF Ivan Jelsma 41412 15th St., Springfield SD 57062

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>8574-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>850.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8574-3</u>	\$ <u>200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law) TOTAL	\$ <u>1050.00</u>

By *Eric Gronlund*
Chief Engineer
Em



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

December 8, 2021

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

A well driller's report filed by Christensen Well & Irrigation shows they completed a new well for you this past spring. The report indicates the well is in the NW 1/4 Section 15-T93N-R60W and will be used for irrigation. I have reviewed our files and cannot find a water permit for a well in this location. Based on the information in the report, it appears you need a water permit.

Enclosed are application forms and an instruction sheet to apply for a water permit for irrigation. The completed forms with the application fee and map can be returned to: Water Rights Program, 523 E Capitol, Pierre SD 57501.

If you believe your water use does not require a water permit or that you have an existing permit, or if help is needed completing the application forms, please contact Ron Duvall or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
karen.schlaak@state.sd.us

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8574-3, Ivan Jelsma**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8574-3, Ivan Jelsma, 41412 15th Street, Springfield SD 57062.

The Chief Engineer is recommending APPROVAL of Application No. 8574-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 8574-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund

Eric Gronlund, Chief Engineer
March 10, 2022

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8574-3
IVAN JELSMA
MARCH 10, 2022

Water Permit Application No. 8574-3 proposes to irrigate 136 acres located in the NW $\frac{1}{4}$ Section 15 at a maximum instantaneous diversion rate of 1.33 cubic feet of water per second (cfs) from one well, 140 feet deep, completed into the Niobrara aquifer and located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 15; all in T93N-R60W. This site is located approximately 2 miles northwest of Springfield, SD.

AQUIFER: Niobrara (NBRR)

Aquifer Characteristics:

The test well completion report submitted with this application identified “gray shale, lost water” from 73 to 77 feet below grade and “easy drilling shale” from 77 to 140 feet below ground surface. Frequently, the Niobrara Formation can be identified as shale by well drillers. The note about losing water is indicative of the Niobrara Formation and is one of the key pieces of information in determining that the well was completed into the Niobrara aquifer. The static water level at the time of well completion, March 2022, was 96 feet below ground surface. Therefore, the Niobrara aquifer is unconfined at the applicant’s well location. In many places, the Niobrara aquifer is under confined conditions (Water Rights, 2022c and 2022e).

The Niobrara Formation is a bedrock formation that underlies most of eastern and western South Dakota (Hedges et al, 1982; Allen et al, 1985). However, it is not an aquifer across its entire area. Only in areas where there is sufficient permeability due to weathering, fracturing, or the presence of solution cavities can the formation act as an aquifer. In the less permeable areas, the Niobrara Formation is generally a low-permeability or almost no-permeability formation. The Niobrara Formation is a “White to dark-gray argillaceous chalk, marl, and shale. Weathers yellow to orange. Contains thin, laterally continuous bentonite beds, chalky carbonaceous shale, minor sand, and small concretions.” (Martin et al, 2004).

There are some portions of the Niobrara aquifer, erosional remnants, that are separate from the main body of the formation as well as from each other (Hedges et al, 1982). This is due to the formation being eroded away locally prior to deposition of the overlying till. The diversion point this application proposes to use is located into one such erosional remnant. This erosional remnant underlies approximately 180,000 acres in portions of Bon Homme and Yankton Counties (Tomhave and Schulz, 2004). The area of the erosional remnant of the Niobrara aquifer this application proposes to use is generally 200 feet thick (Johnson and McCormick, 2005; SDGS, 2022). Groundwater movement in this erosional remnant is toward the Missouri River (Jorgensen, 1971). Since this portion of the Niobrara aquifer is isolated from the main body, the remainder of this report will focus solely on this isolated portion of the aquifer. Figure 1 is a map showing the approximate extent of the erosional remnant of the Niobrara aquifer this application proposes to use.

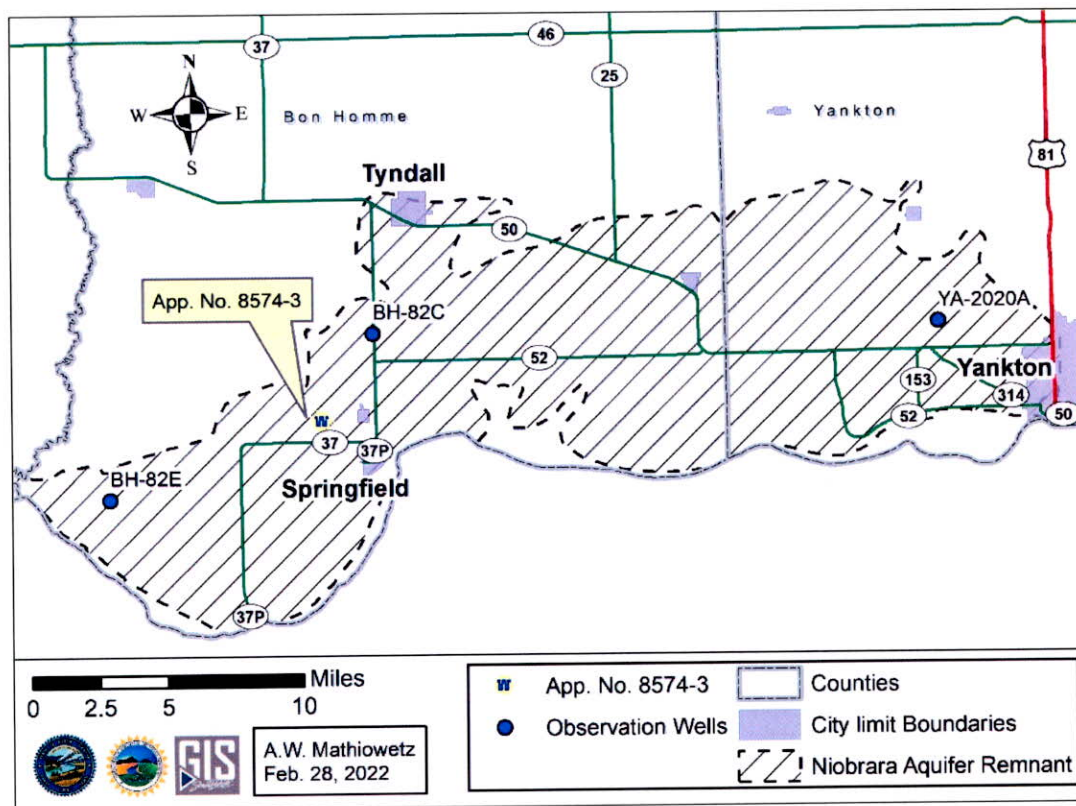


Figure 1- Map of the erosional remnant of the Niobrara aquifer from which Application No. 8574-3 proposes to withdraw water including observation wells (modified from: Martin et al, 2004; Water Rights, 2022c)

This erosional remnant of the Niobrara aquifer is in direct contact with several glacial outwash bodies and may have hydrologic connection to them (Bugliosi, 1986; Christensen, 1974; Jorgensen, 1971; Water Rights, 2022c and 2022e). The glacial aquifers include the Choteau: Tyndall, Choteau: West, and Lower James Missouri: Scotland aquifers (Water Rights, 2022c and 2022e). The potentiometric surfaces of the various aquifers indicate the potential for water to move from the Niobrara aquifer into Choteau: Tyndall aquifer and from the Chouteau: West and Lower James Missouri: Scotland aquifers into the Niobrara aquifer (Water Rights, 2022c and 2022e). However, it should be noted that water can move in the opposite direction if there are changes in the relationship between the potentiometric surfaces of the aquifers. The Niobrara aquifer overlies the Codell Sandstone member of the Carlile shale (Fahrenbach et al, 2010). Typically, there is a layer of impermeable shale, 5 to 30 feet thick, separating the Codell Sandstone from the Niobrara aquifer (Jorgensen, 1971). Where the shale is weathered and permeable, relatively thin, or even not present, there is potential for leakage between the Codell Sandstone and the Niobrara aquifer, typically from the Niobrara to the Codell (Jorgensen, 1971).

SOUTH DAKOTA CODIFIED LAW (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, "A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the diversion point can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management

Board as defined by SDCL 46-2-9 and 46-2-11.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the particular portion of the Niobrara aquifer the applicant plans to use.

WATER AVAILABILITY:

This application proposes to appropriate water from the Niobrara aquifer. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires:

“No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.”

The Niobrara aquifer is not stratigraphically lower/older than the Greenhorn Formation (Fahrenbach et al, 2010), and the applicant is not a water distribution system as defined in SDCL 46-1-6(17). Therefore, a comparison of average annual recharge and average annual withdrawals from this portion of the Niobrara aquifer is required for this application.

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The Water Rights Program maintains three observation wells completed into the erosional remnant of the Niobrara aquifer the applicant intends to use (Water Rights, 2022b). The hydrographs for the observation wells are shown in Figures 2-4. Observation well YA-2020A has slightly more than one year worth of data. That amount of data is not sufficient to be useful for review of this application but is included in this report for completeness. The hydrographs for observation wells BH-82C and BH-82E show the wells are functioning properly and are representative of the aquifer.

The hydrographs for observation wells BH-82C and BH-82E display stable to slightly increasing water levels over their respective periods of record. The water levels rise during wetter periods and decline to stable levels during drier periods. Furthermore, the water levels in the observation wells display the amount of recharge to and natural discharge from the aquifer exceeds pumping with the water levels in the aquifer returning to pre-pumping levels between irrigation seasons. This type of aquifer recovery is indicative that climatic conditions, and therefore the effects of recharge to and natural discharge from the aquifer, govern the long term fluctuations in water level in the aquifer instead of pumping. By recognizing recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs document unappropriated water is available for this proposed appropriation.

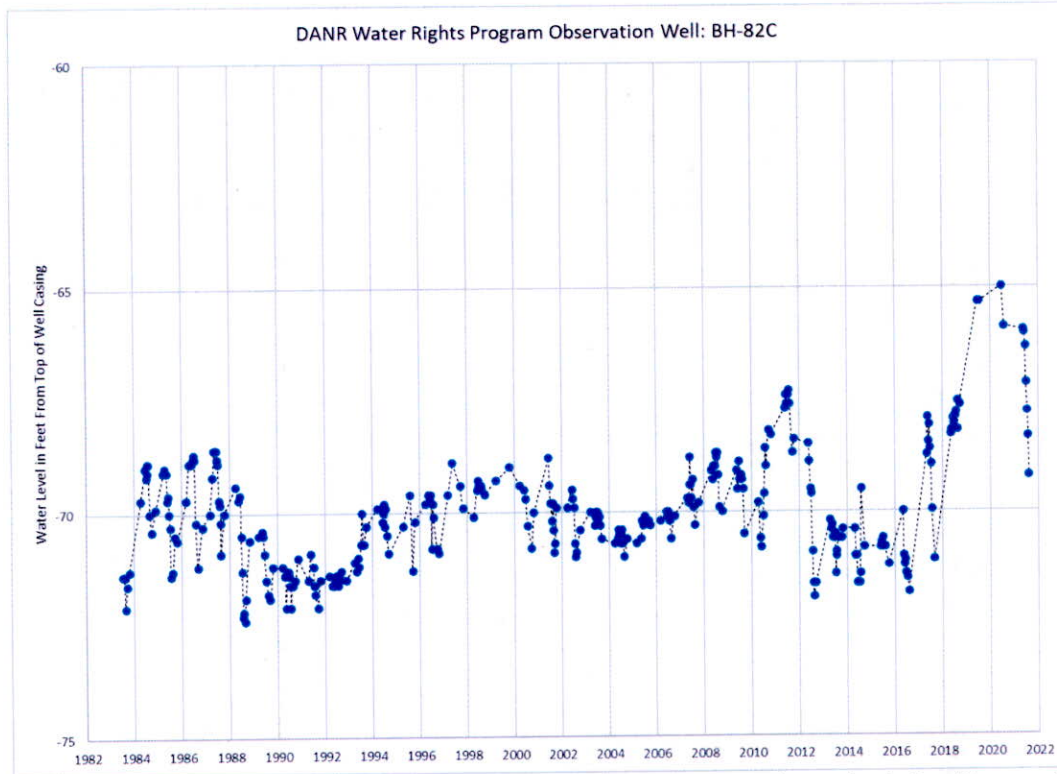


Figure 2- Hydrograph for observation well BH-82C located approximately 3.8 miles northeast of the well site for Application No. 8574-3 (Water Rights, 2022c)

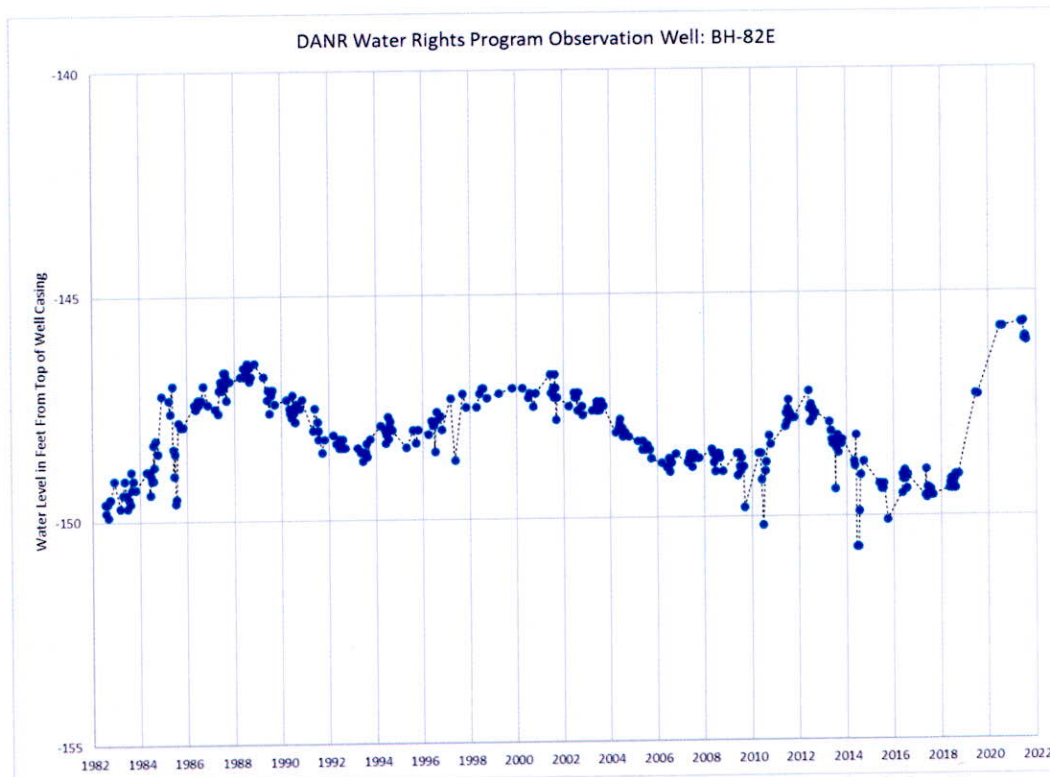


Figure 3- Hydrograph for observation well BH-82E located approximately 8.3 miles southwest of the well site for Application No. 8574-3 (Water Rights, 2022c)

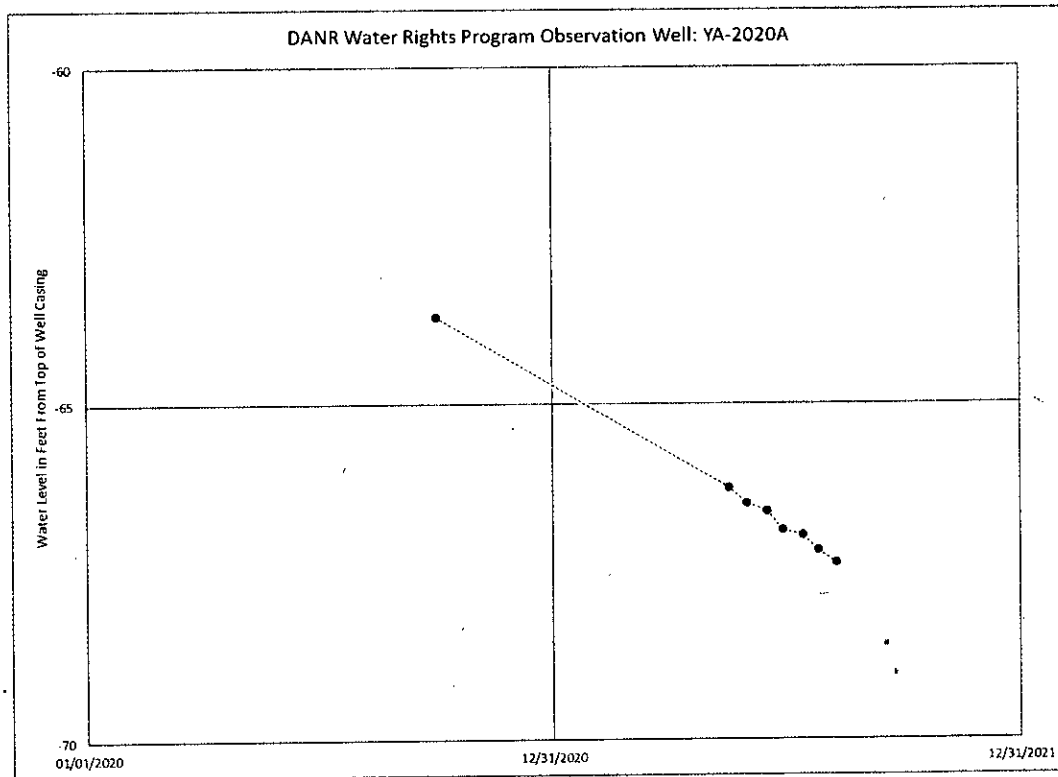


Figure 4- Hydrograph for observation well YA-2020A located approximately 23.1 miles east-northeast of the well site for Application No. 8574-3 (Water Rights, 2022c)

Hydrologic Budget

Recharge

The Niobrara aquifer in Bon Homme County is recharged primarily through subsurface inflow and percolation through overlying till, outwash or shale deposits (Jorgensen, 1971). Additionally, recharge is likely to come through infiltration of precipitation where the Niobrara aquifer is at or near land surface. There is also potential for leakage from the Choteau: West and Lower James Missouri: Scotland aquifers as well as any other hydrologically connected aquifers (Bugliosi, 1986; Christensen, 1974; Jorgensen, 1971; Water Rights, 2022c).

There is no average annual recharge rate for the Niobrara aquifer available. Hedges and others (1985) noted they did not attempt to estimate a recharge rate for the Niobrara aquifer due to its highly variable characteristics across South Dakota. Furthermore, Hedges and others (1985) noted the Niobrara aquifer had such high storage and low use it was unlikely that withdrawals are approaching or exceeding recharge. Furthermore, there is no evidence of a significant decrease in artesian head pressure, based on water well completion reports (Water Rights, 2022e) and observation well data (Water Rights, 2022c) for wells completed into the erosional remnant the applicant proposes to use.

Discharge:

Discharge from this erosional remnant of the Niobrara aquifer occurs primarily through well withdrawals, outflow to the Missouri River, groundwater outflow to hydrologically connected aquifers (e.g. Choteau: West, Codell Sandstone), and by evapotranspiration in the areas where the aquifer is at or near land surface (Bugliosi, 1986; Christensen, 1974; Jorgensen, 1971; Water

Rights, 2022c and 2022e). Currently, there are 14 water rights/permits authorized to withdraw from the same erosional remnant of the Niobrara aquifer the applicant intends to use (Water Rights 2022d). Table 1 lists the water rights/permits authorized to withdraw water from the erosional remnant of the Niobrara aquifer that applicant intends to use (Water Rights, 2022d).

Table 1- Water rights/permits authorized to withdraw water from the erosional remnant of the Niobrara aquifer Application No. 8574-3 proposes to use (Water Rights, 2022d)

Permit No.	Name	County	Priority Date	Status	Use	CFS	Acres
4578-3	DARLENE NAGEL REVOCABLE TRUST	BH	10/17/1980	LC	IRR	1.04	73
4779-3	TERRY BALVIN	BH	06/01/1981	LC	IRR	3.9	287
5356-3	TOWN OF TABOR	BH	08/17/1989	LC	MUN	0.4	n/a
5840-3	CITY OF YANKTON	YA	12/19/1994	LC	IRR	0.43	30
6365-3	CITY OF YANKTON	YA	10/15/2002	LC	IRR	2.23	99.6
7176-3	YANKTON SCHOOL DISTRICT 63-3	YA	12/28/2009	LC	GEO	0.11	n/a
7266-3	VERLYN & JEREMIE JELSMA	BH	09/06/2011	LC	IRR	1.33	109
7269-3	VERLYN JELSMA	BH	09/06/2011	LC	IRR	1.67	158
7985-3	WILLIAM CHENOWETH	BH	03/26/2014	LC	IRR	0.95	230
8053-3	BLANE NAGEL	BH	09/17/2014	LC	IRR	1.45	140
8062-3	KENNETH & CAROL GUENTHER REVOCABLE TRUST	BH	11/06/2014	LC	IRR	1.67	131
8246-3	VERLYN JELSMA	BH	09/06/2011	LC	IRR	1.78	293
8276-3	LARRY D & JENNIFER J BAYER	BH	03/27/2017	PE	IRR	1.85	130
8405-3	CRAIG VANDERLEI	BH	04/12/2021	PE	IRR	1.78	140

BH= Bon Homme, YA= Yankton, LC= Water Right, PE= Water Permit, IRR= Irrigation, MUN= Municipal, GEO= Geothermal

The Town of Tabor holds Water Right No. 5356-3 but is connected to a rural water system and maintains their authorized wells for standby purposes (Steen, 2021). Water Right No. 7176-3 is for a non-consumptive geothermal use (Water Rights, 2022d). Therefore, it is assumed there are no withdrawals under Water Right Nos. 8356-3 and 7176-3 for the purposes of this hydrologic budget. The two previously mentioned water rights are the only non-irrigation appropriative users from this erosional remnant of the Niobrara aquifer. There are a number of domestic wells completed into this erosional remnant of the Niobrara aquifer that don't require appropriative water rights or report annual pumpage. Due to their relatively limited diversion rate and the development of rural water systems in the area, it is assumed the volume pumped by domestic users is negligible to the hydrologic budget for this aquifer.

Table 2 lists the historical reported irrigation water use by water rights/permits from this erosional remnant of the Niobrara aquifer (Water Rights, 2022b). The average annual volume pumped for irrigation over the period of record, 1981-2021, is 386 ac-ft/yr. However, to better reflect current development of irrigation use from this erosional remnant of the Niobrara aquifer due to a notable increase in the number of irrigation permits beginning in 2012, the average annual pumpage starting in 2012 was also calculated. The 2012 through 2021 average annual irrigation pumpage is 709 ac-ft/yr.

Table 2- Historic irrigation pumpage from the erosional remnant of the Niobrara aquifer
Application No. 8574-3 proposes to use (Water Rights, 2022b)

Year	No. of Permits Reporting	Annual Appropriation (acre-feet)	Reported Pumpage (acre-feet)	Year	No. of Permits Reporting	Annual Appropriation (acre-feet)	Reported Pumpage (acre-feet)
1981	3	800	99.7	2003	6	1,205	549
1982	3	772	137	2004	6	1,205	349
1983	4	1,040	290.3	2005	5	1,005	330
1984	4	1,040	170	2006	5	1,010	284
1985	4	1,040	171	2007	5	1,010	296
1986	4	1,040	185	2008	5	1,010	365
1987	4	1,040	266	2009	4	979	118
1988	4	1,040	315	2010	4	979	160
1989	4	1,394	324	2011	4	979	266
1990	3	954	172	2012	8	2,155	1,365
1991	3	954	310	2013	8	2,155	613
1992	4	1,154	187	2014	9	2,621	617
1993	4	1,154	192	2015	11	2,825	767
1994	3	914	378	2016	11	3,175	852
1995	4	994	267	2017	13	4,013	1,025
1996	4	994	505	2018	11	3,367	157
1997	4	994	307	2019	11	3,367	160
1998	4	994	271	2020	11	3,121	499
1999	4	994	259	2021	12	3,401	1,034
2000	5	1,025	352	Min	3	772	100
2001	5	1,025	374	Max	13	4,013	1,365
2002	5	1,005	494	Avg (1981 to 2021)	6	1,511	386
				Avg (2012 to 2021)	11	3,020	709

The natural discharge from this erosional remnant of the Niobrara aquifer is proportional to the hydraulic gradient between this aquifer and the other aquifer, river, or other water body receiving the discharge. Aquifer characteristics (e.g. hydraulic conductivity, saturated thickness) are generally site specific for bedrock aquifers such as the Niobrara aquifer or are relatively site specific and can only be determined through aquifer performance testing. Buhler (2015) estimated transmissivity to determine an approximate discharge rate to the Missouri River for this erosional remnant of the Niobrara aquifer. The estimate was in excess of 11,000 ac-ft/yr (Buhler, 2015). There is not sufficient data available to estimate discharge to the Codell Sandstone or other glacial aquifers that would receive discharge from this erosional remnant of the Niobrara aquifer.

Balance of Hydrologic Budget

Estimated average annual appropriative use is 709 ac-ft/yr. This application, if approved and assuming an application rate of 12 inches per authorized acre per year, would on average pump 136 ac-ft/yr. That is a total of 845 ac-ft/yr on average. Currently, there is not an estimated recharge rate available for the Niobrara aquifer. It should be noted additional pumping from this remnant of the Niobrara aquifer could induce more recharge from the Lower James Missouri: Scotland and Choteau: West aquifers as well as reduce the amount of natural discharge to the Missouri River. The observation well hydrographs document there has been no significant decrease in artesian head pressure in the aquifer despite continued irrigation development. Recognizing that natural

discharge can be captured for pumping, the discharge to the Missouri River alone would be more than sufficient to supply existing appropriative users, domestic users, and this application. Therefore, there is a reasonable probability there is unappropriated water available for this proposed appropriation.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Figure 5 is a map of the area near the well location for Application No. 8574-3 including Niobrara aquifer water rights. The nearest water right/permit to the applicant's well is Water Right No. 7269-3 located approximately 0.7 miles to the north of the applicant's well site (Water Rights, 2022d). The nearest domestic well completed into the Niobrara aquifer on file with the Water Rights Program is approximately 0.4 miles south of the applicant's well (Water Rights, 2022e). There may be other domestic wells completed into the Niobrara aquifer in close proximity to the applicant's well that are not on file with the Water Rights Program.

The hydrograph for observation well BH-82C (see Figure 2) shows minimal effects of drawdown caused by pumping from the two irrigation permits authorizing multiple wells all within approximately one mile of the observation well (Water Rights, 2022c and 2022d). Observation well BH-82C is unconfined with "broken" Niobrara Formation on top of consolidated Niobrara Formation in a manner similar to the well the applicant intends to use. The saturated thickness of the Niobrara aquifer at the applicant's well was 54 feet at the time of well completion in March 2021.

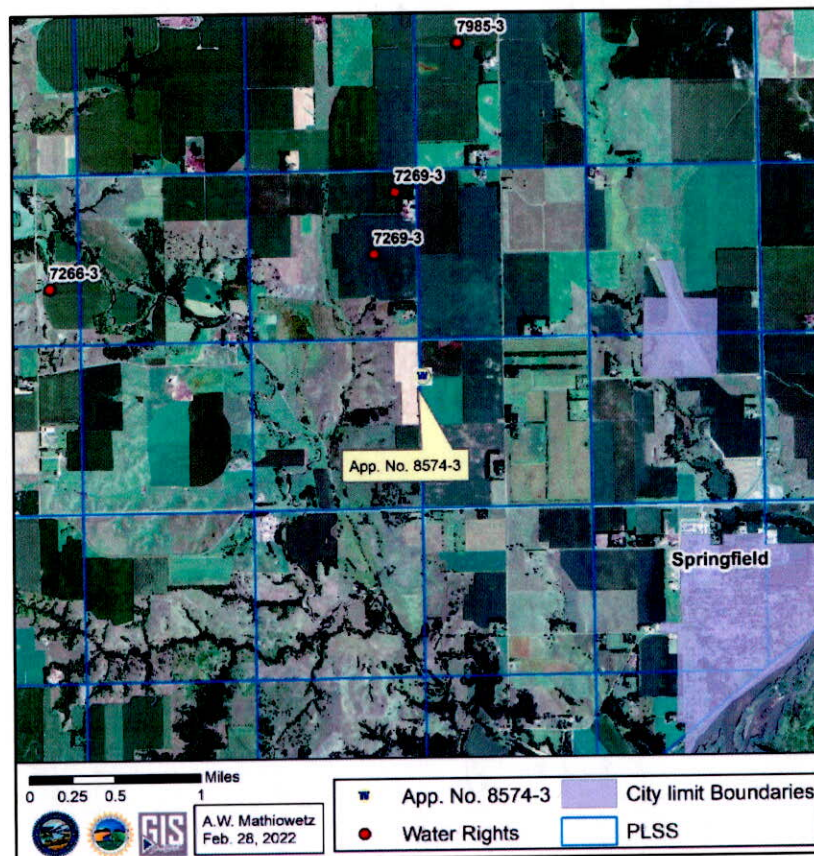


Figure 5- Map of the area within approximately two miles of Application No. 8574-3 including Niobrara aquifer water rights (Water Rights, 2022d)

In general, drawdown does not extend far from a pumping well completed into an unconfined aquifer but can extend some distance from a well completed into a confined aquifer. South Dakota Codified Law (SDCL) 46-6-6.1 does not necessarily protect artesian head pressure as a means of delivery, and the Water Management Board has recognized in the past to place water to maximum beneficial use, a certain amount of drawdown may occur. In order to balance interests between appropriative use and delivery of water by artesian head pressure, the Water Management Board defined an “adversely impacted domestic well” in Administrative Rule of South Dakota (ARSD) 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”.

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use of water issue for Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills (Water Rights, 1995). The Water Management Board adopted Findings of Facts and Conclusions of Law that noted reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered an adverse impact it would also be in conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to lower their pumps to accommodate for deeper water levels where the aquifer is locally confined.

For where the aquifer is unconfined, the relatively thick saturated thickness and the lack of drawdown as demonstrated by the hydrograph for observation well BH-82C demonstrates well interference from pumping this proposed diversion is not expected to be adverse even in relatively close proximity to the applicant’s well. There are no complaints on file with the DANR-Water Rights Program regarding well interference issues from this portion of the Niobrara aquifer (Water Rights, 2022a). Therefore, when considering the statute (SDCL 46-6-6.1), rule (ARSD 74:02:04:20(7)), the primarily unconfined local nature of the Niobrara aquifer, and the saturated thickness of the aquifer, there is a reasonable probability this proposed diversion will not unlawfully impair existing users with adequate wells or existing adequate domestic wells.

CONCLUSIONS:

1. Application No. 8574-3 proposes the irrigation of 136 acres at a maximum instantaneous diversion rate of 1.33 cfs from a well completed into the Niobrara aquifer in Bon Homme County.
2. Based on the observation well data and a hydrologic budget, there is a reasonable probability unappropriated water is available for this proposed appropriation.

3. There is a reasonable probability that pumping this proposed diversion will not unlawfully impair existing domestic water users and water rights with adequate wells.



Adam Mathiowetz, PE
SD DANR-Water Rights Program

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AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

MAR 28 2022

WATER RIGHTS
PROGRAM

IVAN JELSMA
41412 15TH ST
SPRINGFIELD SD 57062

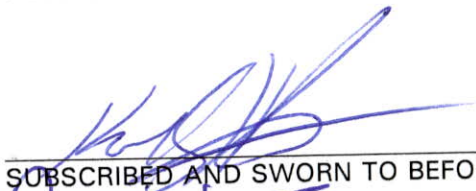
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
3 + 23 NOTICE OF APPLICATIO

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 23rd DAY OF March, 2022
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$38.56 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 03/23/2022

FILED ON: 03/23/2022


SUBSCRIBED AND SWORN TO BEFORE ME THIS 23rd DAY OF March, 2022


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026

Notice of Application No. 8574-3 to Appropriate Water

RECEIVED

MAR 28 2022

WATER RIGHTS
PROGRAM

Notice is given that Ivan Jelsma, 41412 15th St, Springfield SD 57062 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from one well completed into the Niobrara Aquifer (140 feet deep) located in the NW 1/4 NW 1/4 Section 15 for irrigation of 136 acres located in the NW 1/4 Section 15; all in T93N-R60W. This site is located approximately 2 miles northwest of Springfield SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8574-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineers recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by April 4, 2022.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by April 4, 2022.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of \$38.56.

Affidavit of Publication

State of South Dakota }
County of Bon Homme } SS

RECEIVED

MAR 28 2022

WATER RIGHTS
PROGRAM

Rebecca Ly Being first duly sworn
says that the **Springfield Times** is a legal weekly news-
paper for publication of legal and other official notices as
required by Chapter 298 of the Session Laws of South
Dakota, 1939; that it has bona fide paid circulation of
more than two hundred copies weekly; that it is pub-
lished in English language in the City of Springfield, Bon
Homme County, South Dakota, and has been admitted
to the United States mail under second class mailing
privilege for more than one year prior to the first publi-
cation of the notice herein mentioned, and that it is
printed in an office maintained at the place of publica-
tion at Springfield, South Dakota, and that deponent is
the publisher in charge of the advertising department of
said newspaper; that the advertisement headed

Notice of Application #8574-3
to Appropriate Water
106 @ 399

a printed copy of which is hereto attached, was printed
and published in said newspaper for *one* successive
weeks, upon the following dates:

<i>May 13, 2022</i>	20.....
.....20.....	20.....
.....20.....	20.....
.....20.....	20.....

That the full amount of the fee charged for the publica-
tion of said notice, \$ *42.29*, inures to the benefit
of the publisher of said newspaper, that no agreement or
understanding for the division thereof has been made
with any other person, and that no part has been agreed
to be paid to any person whomsoever.

Rebecca Ly, Publisher
Subscribed and sworn to before me this
23 day of *May*, 20*22*

Peggy Schelske
Notary Public, South Dakota
my Commission Expires 10-24-2027

Notice of Application No. 8574-3 to Appropriate Water

Notice is given that Ivan Jelsma, 41412
15th St, Springfield SD 57062 has filed an
application for a water permit to appro-
priate 1.33 cubic feet of water per second
from one well completed into the Niobrara
Aquifer (140 feet deep) located in the
NW 1/4 NW 1/4 Section 15 for irrigation
of 136 acres located in the NW 1/4 Sec-
tion 15; all in T93N-R60W. This site is lo-
cated approximately 2 miles northwest of
Springfield SD.

Pursuant to SDCL 46-2A-2, the Chief
Engineer recommends APPROVAL of
Application No. 8574-3 with qualifica-
tions because 1) unappropriated water is
available, 2) existing domestic water uses
and water rights will not be unlawfully
impaired, 3) it is a beneficial use of water,
and 4) it is in the public interest as it per-
tains to matters within the regulatory au-
thority of the Water Management Board.
The Chief Engineer's recommendation
with qualifications, the application, and
staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for
this information, or other information, at
the Water Rights Program address pro-
vided below.

Any person interested in opposing this
application or recommendation shall al-
lege that the application, upon approval,
will cause injury to the person that is
unique from any injury suffered by the
public in general. The injury must con-
cern a matter either within the regula-
tory authority found in SDCL 46-2A-9 for
approval or denial of the application, or
other matter concerning the application
within the regulatory authority of the
board to act upon as defined by SDCL

46-2-9 and 46-2-11, or both. Any person
meeting the petitioner requirements and
wishing to be a party of record in a con-
tested case hearing shall file a written
petition to oppose the application with
BOTH the applicant and Chief Engineer.
A petition opposing the application shall
be filed on a form provided by the Chief
Engineer. The petition form is available
online at <https://danr.sd.gov/public> or
by contacting the Chief Engineer. The
Chief Engineer's address is "Water Rights
Program, Foss Building, 523 E Capitol,
Pierre SD 57501" or call (605) 773-3352.
The applicant's mailing address is given
above. If contesting the Chief Engineer's
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file a petition. A petition filed by either an
interested person or the applicant must
be filed by April 4, 2022.

The petition shall include a statement
describing the unique injury upon ap-
proval of the application on the peti-
tioner, the petitioner's reasons for opposing
the application, and the name and mail-
ing address of the petitioner or the peti-
tioner's legal counsel, if legal counsel is
obtained.

Any interested person may file a com-
ment on the application with the Chief
Engineer. The comment shall be filed
on a form provided by the Chief Engi-
neer and is available online at <https://danr.sd.gov/public> or by calling (605)
773-3352 or writing the Chief Engineer
at the address provided above. Filing a
comment does not make the commenter
a party of record or a participant in any
hearing that may be held. Any comment
must be filed by April 4, 2022.

If the applicant does not contest the
recommendation of the Chief Engineer
and no petition to oppose the application
is received, the Chief Engineer shall act
on the application pursuant to the recom-

mendation with no hearing held before
the Water Management Board. If a peti-
tion opposing the application or contest-
ing the recommendation is filed, then a
hearing will be scheduled, and the Water
Management Board will consider this ap-
plication. Notice of the hearing will be
given to the applicant and any person fil-
ing a petition.
Published once at the total approximate
cost of \$42.29.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, March 14, 2022 9:43 AM
To: 'Sam Berres'
Subject: 8574-3, Ivan Jelsma
Attachments: 8574-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 23, 2022 in the Press & Dakotan.

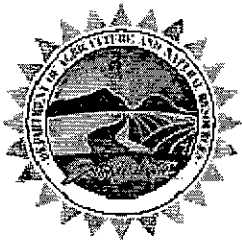
Ivan Jelsma, 41412 15th St, Springfield SD 57062 (605 661-9358) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, March 14, 2022 9:42 AM
To: Alex Bochman
Subject: 8574-3, Ivan Jelsma
Attachments: 8574-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 23, 2022.

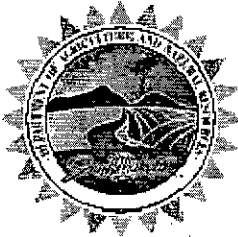
Ivan Jelsma, 41412 15th St, Springfield SD 57062 (605 661-9358) has been notified to contact you to authorize publication and arrange for payment.

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Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

DANR, Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPERS RIGHT AWAY.**

March 14, 2022

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

Water Permit Application No. 8574-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Springfield Times printed at Springfield SD (Ph # 605 369-2441) and the Press & Dakotan printed at Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Notice of Application No. 8574-3 to Appropriate Water

Notice is given that Ivan Jelsma, 41412 15th St, Springfield SD 57062 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from one well completed into the Niobrara Aquifer (140 feet deep) located in the NW 1/4 NW 1/4 Section 15 for irrigation of 136 acres located in the NW 1/4 Section 15; all in T93N-R60W. This site is located approximately 2 miles northwest of Springfield SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8574-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by April 4, 2022.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by April 4, 2022.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

APR 28 2022

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

Enclosed is Water Permit No. 8574-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

MAY 04 2022

WATER RIGHTS
PROGRAM**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date May 1 - 2022TO: Water Rights Program, DANR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Ivan Jelsma
(name)41412 15th St
(address)Springfield, SD 57062
(city, state, zip)605-369-2317
(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 8574-3 states that the water use system is to be constructed by

(date)

, and water is to be put to beneficial use by

(date)

The water use system was completed on 7-1-2021
(date)Applying the water to beneficial use was completed on ~~48~~-9-15-2021
(date)

You may schedule an investigation so that the water license may be issued.

Ivan Jelsma
(signature)



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 4, 2022

8574-3

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 8574-3**

I have this day, June 15, 2022 made a thorough examination of the water use system owned by Ivan Jelsma, 41412 15th St., Springfield, SD 57062, holder of Permit No. 8574-3, bearing the priority date of December 27, 2021, authorizing the diversion of 1.33 cu. ft. per second of the waters of groundwater, Niobrara Aquifer for the irrigation of 136 acres, located in Bon Homme County.

Inspection contact: Ivan Jelsma

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Christensen Well & Irrigation
- 2) No. of Wells: 1
- 3) Depth(s): 140 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 60 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 14 inches
- 2) Length: 80 feet
- 3) Type: Open hole in shale
- 4) Static water level: 96 feet

Pump:

- 1) Make: Goulds
- 2) Model: 7TSHC
- 3) Capacity: 600 gpm

Motor:

- 1) Make: Unknown
- 2) Model No.: Unknown
- 3) Horsepower rating: 50 hp

B. Works used to transport water to place of use:

- 1) Type: PVC
- 2) Size: 8 inches
- 3) Length: 1,280 feet

C. Works used to apply water to beneficial use:**Center Pivot:**

- 1) Make: T&L
- 2) Overall length: 1285 feet
- 3) Number of towers: 8
- 4) End gun: Yes
- 5) Capacity: 600 gpm

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows:
The well is 60 feet east and 1,170 feet south of the northwest corner of Section 15-T93N-R60W (Latitude 42.87648, Longitude -97.93112 – NW1/4 of the NW1/4).
- 2) The works are capable of diverting and conveying to the place of use 1.33 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows: All in Section 15-T93N-R60W

<u>NW1/4NW1/4</u>	<u>31 acres</u>
<u>NE1/4NW1/4</u>	<u>31 acres</u>
<u>SW1/4NW1/4</u>	<u>34 acres</u>
<u>SE1/4NW1/4</u>	<u>34 acres</u>

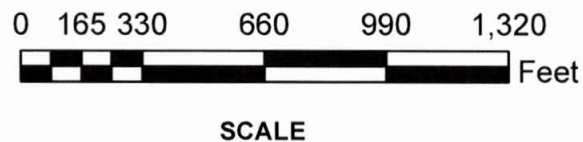
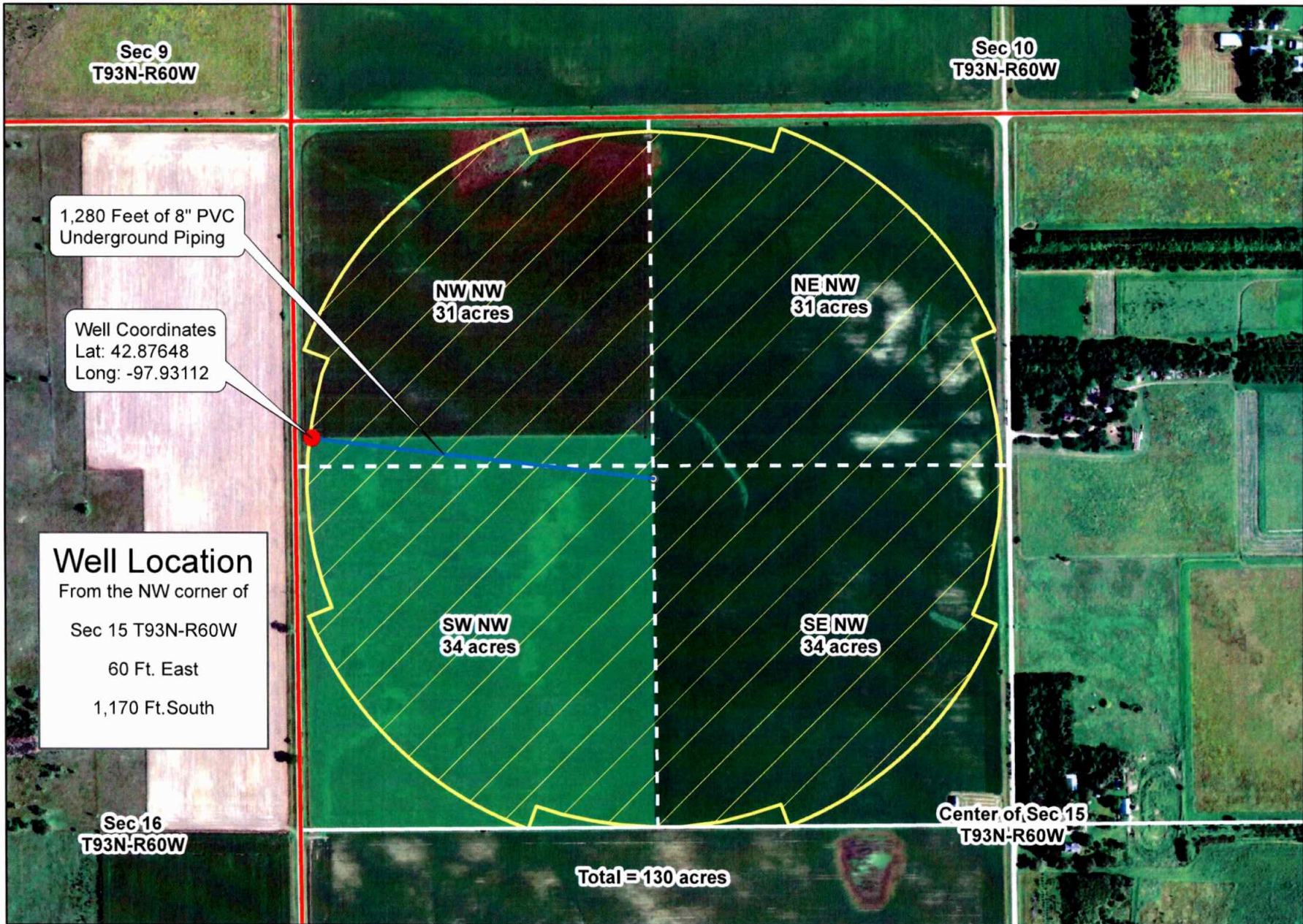
comprising a total of 130 acres of land and the license should be issued for 1.33 cfs.
- 3) All structures, wells and lands on map Yes

F. Comments or other permit(s) associated with the project: The pump, motor and pivot information was obtained from Christensen Well and Irrigation.

Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: June 16, 2022

Water Right No. 8574-3



Keith DeJong

Keith DeJong, PE Ret.
Staff Engineer
June 16, 2022



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JUN 22 2022

8574-3

Ivan Jelsma
41412 15th St
Springfield SD 57062

Dear Mr. Jelsma:

Enclosed is Water License No. 8574-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8574-3**

(1) Ivan Jelsma, 41412 15th St., Springfield SD 57062 made Application No. 8574-3, December 27, 2021, for a water permit to divert 1.33 cubic feet of water per second from ground water, one well (Niobrara Aquifer), Bon Homme County, South Dakota for irrigation purposes. Permit No. 8574-3, with a priority date of December 27, 2021, was approved April 4, 2022, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 4, 2027, and for the application to beneficial use of water on or before April 4, 2031.

The Permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use" on May 4, 2022. The "Notice" stated the water use system was completed on July 1, 2021, and the water placed to beneficial use on September 15, 2021.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.33 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 60'E and 1,170'S of the NW corner of Section 15, T93N, R60W (NW ¼ NW ¼)
Latitude 42.87648, Longitude -97.93112

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 15, T93N, R60W	NW ¼ NW ¼	31 acres
	NE ¼ NW ¼	31 acres
	SW ¼ NW ¼	34 acres
	SE ¼ NW ¼	34 acres
	Total	130 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Ivan Jelsma, 41412 15th St., Springfield SD 57062 the holder and/or owner of Water Right No. 8574-3 is issued a license to appropriate water, the right to use 1.33 cubic feet of water per second from ground water, one well (Niobrara Aquifer) with a priority date of December 27, 2021, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8574-3 and subject to the following qualifications:

- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JUN 22 2022

date

